"click" when the protrusion or lugs of the shield snap into the circumferential groove of the tube, it will be appreciated that the ramp is not essential to the invention. Indeed, for winged needle devices where it is desired that the withdrawal of the needle from the vein be coincident with the shielding of the needle by the shield, it may not always be desirable to have to provide additional force on the inner tube (via rear wings, rear shoulder, or flexible tubing attached to the rear of the inner tube) to force the lugs of the shield over such a ramp. Further, while the locations of the grooves in the inner tube of the assembly were described as being at the forward and rear ends of the inner tube, those skilled in the art will appreciate that the exact location is not critical provided the contaminated needle is shielded by the shield after use. Similarly, the shapes of the forward and rear sections of the inner tube are not critical, provided they are arranged to mate respectively with the needle and flexible tubing, and provided they function to appropriately lock the lug members (protrusions) of the winged shield in the circumferential grooves and permit proper movement of the lug members during assembly.

It should further be understood that while certain terminology such as "circumferential" was used in describing the grooves on the inner tube, such terminology is intended to be broad in scope to encompass a groove in the circumference regardless of the circumferential shape, and it is not intended that the invention be limited to circular geometries. Moreover, while particular embodiments with particular features were disclosed, it should be appreciated that various of the features could be utilized in conjunction with any of the embodiments. For example, the ribs of FIG. **6** could be utilized with the winged shield of FIG. **3**. Likewise, the protrusion arrangements of the parent U.S. patent application Ser. No. 224,920 could be used with both of the instant embodiments. Therefore, it will be apparent to those skilled in the art that yet other changes and modifications may be made to the invention as described without departing from the scope of the invention as so claimed.

I claim:

1. A medical device for assembly with a hollow needle, comprising:

a) an inner tube member having

a passageway therethrough,

a front end adapted to have the hollow needle secured thereto,

a rear end adapted to receive at least one of a fluid conduit means and a fluid container means, and

an outer surface having first and second circumferential grooves, said first groove being rearward of said second groove, wherein said outer surface of said tube member subscribes a larger cross-section area through said inner tube member at the forward end of said second circumferential groove than at the rearward end of said second circumferential groove; and

b) a resiliently flexible hollow outer winged shield member having

an inner surface subscribing a slightly larger cross-section than said outer surface of said inner tube member,

a front end having an opening therein,

an open rear end, and

at least one protrusion extending inwardly from said inner surface of said hollow outer member, the inner surface of said at least one protrusion subscribing a smaller cross-section than said outer surface of said inner tube member at the forward end of said second circumferential groove of said inner tube member, said at least one protrusion engaging said first circumferential groove to maintain said shield member in a first retracted position in which the hollow needle is exposed, and engaging said second circumferential groove to maintain said shield member in a second extended position in which the needle is covered by said shield member, wherein said at least one protrusion is disengageable from said first circumferential groove and said shield member is slidable relative to said inner tube member between said first position and said second position.

2. A medical device according to claim **1**, wherein:

said outer surface of said inner tube member has a ramp adjacently rearward of said second circumferential groove such that cross-sections through said inner tube member subscribe increasing areas in a direction approaching said second circumferential groove, and

said at least one protrusion slidably engages said outer surface of said tube member such that when engaging said ramp in moving from said first position to said second position, additional tension is placed on said at least one protrusion and additional resistance to movement is obtained.

3. A medical device according to claim **2**, wherein:

said outer surface of said tube member includes an enlarged portion rearward of said first circumferential groove, said enlarged portion having a cross-section subscribing an area larger in diameter than a cross-sectional area through said tube member at the forward end of said first circumferential groove.

4. A medical device according to claim **3**, wherein:

said inner surface of said winged shield member is substantially cylindrical,

said open rear end of said hollow outer winged shield member has at least two slots along longitudinal axes parallel to a long axis of said winged shield member, said slots causing said at least one inner protrusion to form inwardly extending lugs; and

said inner tube member further includes at least one substantially flat rear rotational locking wing extending generally radially from said tube member, said rear rotational locking wing extending through and locking with one of said at least two slots in said outer winged shield member when said inwardly extending lugs of said outer winged shield member are engaged in said first circumferential groove thereby preventing said outer winged shield member from rotating relative to said inner tube member when said shield member is in said first retracted position.

5. A medical device according to claim **4**, wherein:

said tube member further comprises on its outer surface first locking means; and

said hollow outer winged shield member comprises on its inner surface second locking means,

said first and second locking means adapted to lock so as to prevent rotational motion of said outer winged shield member relative to said tube member when said inwardly extending lugs of said outer